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ATTORNEY'S DOCKET NO: S01448/70000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas J. Awad et al.  
Serial No: --  
Filed: Herewith  
For: METHOD AND APPARATUS FOR PROVIDING AN ERROR  
CHARACTERIZATION ESTIMATE OF AN IMPULSE  
RESPONSE DERIVED USING LEAST SQUARES

Examiner: --  
Art Unit: --



Commissioner for Patents  
Washington, D.C. 20231

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case.  
No fee or certification is required.

**PART II: Information Cited**

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

**PART III: Remarks**

Documents cited on the attached form PTO-1449 (modified) are enclosed unless otherwise indicated on the attached form PTO-1449 (modified). It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

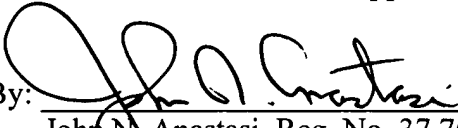
By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,  
*Thomas J. Awad et al., Applicants*

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Docket No. S01448/70000  
Dated: August 8, 2001

FORM PTO-1449/A and B (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		APPLICATION NO.: ---	ATTY. DOCKET NO.: S01448/70000
		FILING DATE: HERewith	
		APPLICANT: Thomas J. Awad et al.	
		GROUP ART UNIT:	EXAMINER:
Sheet		of	

**U.S. PATENT DOCUMENTS**

Examiner's Initials#	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	1	5,200,915		Hayami et al.	04/06/1993
	2	5,442,569		Osano	08/15/1995
	3	5,630,154		Bolstad et al.	05/13/1997
	4	5,790,598		Moreland et al.	08/04/1998
	5	5,889,857		Boudy et al.	03/30/1999
	6	5,974,377		Navarro et al.	10/26/1999
	7	6,151,358		Lee et al.	11/21/2000

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09/925194  
08/08/01

**FOREIGN PATENT DOCUMENTS**

Examiner's Initials#	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/Country	Number	Kind Code			

**OTHER ART — NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials#	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	8	Adaptive filters; Theory and Applications/B. Farhang-Boroujeny. John Wiley & Sons Ltd. (chapter 12, pages 413-437)	
	9	Numerical recipes in C: the art of scientific computing/William H. Press. Cambridge University Press (chapters 1-2, pages 1-99)	
	10	Linear Predictive Spectral Shaping for Acoustical Echo Cancellation. Sanro Zlobec. Department of Electrical Engineering, McGill University, Montreal, November 1995.	

EXAMINER	DATE CONSIDERED
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#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_\_\_\_, filed \_\_\_\_\_, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - Must provide a copy of any patent, publication, other information listed, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]